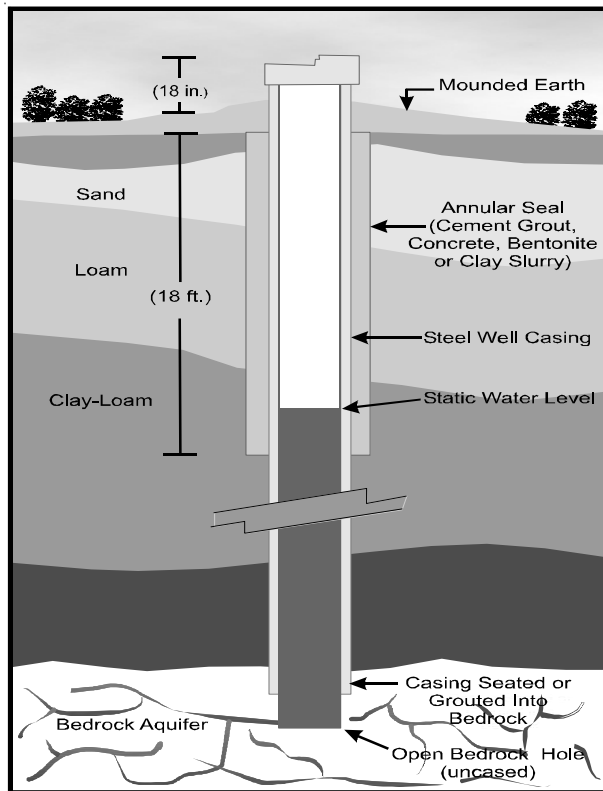


Developing Public Water Supply Well



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Development of a new well for a public water supply (PWS) requires the review and written approval of the Department of Environmental Quality (DEQ) prior to beginning construction (Public Water Supply Law, 75-6-112(3)). Test wells that might later be converted to PWS wells also require prior DEQ approval. The purpose of the review is to ensure that public drinking water sources will be sited and constructed in a manner likely to produce an adequate quantity of water meeting drinking water standards. Following is a general outline of the plan submittal and review process. Most new sources should follow this procedure; however, there are always exceptions. If you have any questions about well development requirements, please contact the DEQ Public Water and Subdivisions Bureau at (406) 444-4400.

DEQ Review Process

1. Submit a design report, plans and specifications to DEQ for review of the proposed source location and well construction methods:

- For a community PWS*, Circular DEQ 1 applies and a registered professional engineer (PE) is required.
- For a non-community PWS**, Circular DEQ 3 applies and a PE may be required for more complex systems.

■ Information required with either submittal includes:

- ◆ PWS-6 Source Water Assessment to show that the well will be located to avoid contaminant sources or has barriers to reduce susceptibility.
- ◆ Easement or ownership documentation for a 100-foot continued protection zone around the well.
- ◆ PWS-5 Assessment of Groundwater Sources Under the Direct Influence of Surface Water to see if the proposed well would likely be susceptible to surface water contaminants.

NOTE: For wells intended to produce greater than 35 GPM, evidence of application for a Beneficial Water Use Permit to the Department of Natural Resources and Conservation (DNRC) is required prior to well construction.

2. Well construction may begin after written approval from DEQ.

- Plans and specifications must be resubmitted for review and re-approval if construction is not completed within three years of the approval date or if the design changes substantially.

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3. The following must be submitted to DEQ for review and approval of the complete public water system:

- Yield and drawdown test data and pump curve
- Driller's well log
- Design report, specifications and plans for transmission piping, treatment, pumphouse plumbing, pumps, hydro-pneumatic tanks, etc.

4. The well may not serve water to the public until certified as-built drawings and specifications have been received by DEQ or the project engineer certifies by letter to DEQ that the well was inspected and found to be constructed in accordance with approved plans and specifications. Certification must include:

- Satisfactory bacteriological and nitrate/nitrite test results
- Evidence that DNRC water rights requirements are being met

NOTE: For wells less than 35 gpm, the owner must submit a "Notice of Completion of Groundwater Development" to DNRC within 60 days after water use begins. For wells greater than 35 gpm, a water right permit is required prior to use.

5. Within 90 days after PWS construction, the following must be submitted to DEQ:

- Complete set of certified as-built drawings
- Final operation and maintenance manual

6. Before the end of the first calendar quarter in which the PWS well is connected, the following water quality samples must be submitted to DEQ:

- Community or non-transient non-community PWS*:

Nitrate, nitrite, specific conductance, coliform bacteria (2 tests minimum), pH, temperature, alkalinity, conductivity, turbidity, calcium, iron, manganese, hardness, sodium, sulfate, chloride, inorganic chemicals, volatile organic chemicals, synthetic organic chemicals, radionuclides (community PWSs only), unregulated chemicals

- Transient non-community PWS**:

Nitrate, nitrite, specific conductance, coliform bacteria (two tests minimum)

*Community PWS – Serves at least 15 service connections used by year-round residents or regularly
**serves at least 25 year-round residents

Transient non-community PWS – Serves at least 25 persons daily (not the same people) for at least 60 days in a year (e.g. cafes, motels, campgrounds)

* Non-transient non-community PWS – Regularly serves at least 25 of the same persons over six months per year. (e.g. schools, daycares)

ALL NECESSARY APPROVALS

must be obtained from the PWS Section at DEQ (444-4400).

Source Water Protection staff (444-6697) can provide technical assistance with PWS-6 Source Water Assessment.

OTHER INFORMATION SOURCES

All DEQ Drinking Water Circulars can be viewed on the Internet at:

<http://www.deq.mt.gov/wqinfo/Circulars.asp>

Instructions and templates for completing a PWS-6 report can be viewed on the Internet at:

<http://www.deq.mt.gov/ppa/p2/swp/Circulars.asp>

Information about potential contaminant sources can be found and mapped at:

<http://nr.is.state.mt.us/mapper/>